

# NGDA Dataset Report

**Official NGDA Title:** National Levee Database, series information for the current inventory of the Nation's levees

**Metadata Record Title:** National Levee Database, Series Information For The Current Inventory Of The Nation's Levees.

**A-16 NGDA Theme:** Water - Inland

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## Metadata:

**Registration Status:** Complete

**Registered on** 3/18/2015

**GeoPlatform Link\*:** <https://www.geoplatform.gov/node/243/65c0051a-f6e1-40b3-aba9-91330af6b285>

**Data.gov Metadata Link\*:** <http://catalog.data.gov/harvest/object/485fd130-425c-4889-b631-e3b761e767e6/html>

\*If the metadata has been updated and reharvested after publication of this report, the link may no longer be valid. The dataset may be searched for manually in Data.gov or GeoPlatform.gov.

# NGDA Lifecycle Maturity Assessment (LMA) Report

## Time Frame:

No response provided.

## LMA Submission:

**Status:** Complete

**Date:** 10/27/2015

**Extension Requested:** Yes

## LMA Reviewer(s):

**Supervisor:** Did not review

**Theme Lead:** Did not review

**Executive Champion:** Did not review

**SAOGI\*:** Did not review

**Other:** William Nye

## LMA Verifier:

**Name:** William Nye

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## Attachments:

To get access to any attachments referenced in the report, email the LMA Help Desk at [NGDA\\_LMA\\_help@fgdc.gov](mailto:NGDA_LMA_help@fgdc.gov). Please use the subject "Dataset Report Attachment(s)" and indicate the associated official NGDA title.

\*Senior Agency Official for Geospatial Information (SAOGI)

## Lifecycle Maturity Assessment (LMA) Summary

### Overall Maturity:

**Optimized; Established**

General Questions: 100%

**Optimized; Established**

Stage 1 - Define/Plan: 73%

**Mature; Consistent**

Stage 2 - Inventory/Evaluate: 100%

**Optimized; Established**

Stage 3 - Obtain: 77%

**Mature; Consistent**

Stage 4 - Access: 100%

**Optimized; Established**

Stage 5 - Maintain: 100%

**Optimized; Established**

Stage 6 - Use/Evaluate: 100%

**Optimized; Established**

Stage 7 - Archive: 100%

**Optimized; Established**

### NGDA Dataset Maturity Definitions:

How To Calculate Maturity: [https://www.geoplatform.gov/sites/default/files/How\\_to\\_Calculate\\_Maturity.pdf](https://www.geoplatform.gov/sites/default/files/How_to_Calculate_Maturity.pdf)

Maturity	Maturity Characteristics for All Lifecycle Stages
Optimized; Established Rank = 5	Dataset meets virtually all business needs of all users. The dataset is considered authoritative by owners and secondary users. It is curated across all stages of the approved lifecycle. Future needs are defined on a regular basis and resources for addressing both current and future business requirements are available.
Mature; Consistent Rank = 4	Dataset meets all the business needs of the primary owner and most of the secondary users. The dataset is curated and used as authoritative by the primary owner. Dataset is used widely by secondary users actively engaged in sustaining the dataset. Future needs are identified and steps are planned to address these. All stages are supported and reviewed on a recurring basis. The dataset is well managed in relation to the approved lifecycle.
Managed; Predictable Rank = 3	Dataset meets a significant number of the business needs of the primary owner and is widely used as an authoritative resource by secondary users. Benchmark activities are occurring in at least four of the approved lifecycle stages. Management practices in relation to the approved lifecycle is moderate but consistent. Dataset is integrating changing business requirements in lifecycle stages impacting overall maturity.
Transition; Transformation Rank = 2	Dataset meets business needs of the primary owner and has moderate use by secondary users. Benchmark activities are occurring in at least three stages. Efforts to integrate funding, include partners, and obtain data are not supported in a sustained manner. Management practices in relation to the stages of the approved lifecycle is limited.
Planned; Initial Development Rank = 1	Dataset limited in meeting business needs of the primary owner. Benchmark activities in the approved lifecycle are just starting to consider secondary uses, partnerships are forming to support additional dataset uses. Dataset development is in a very early stage. Minimal or limited management against the benchmarks in the approved lifecycle.
No Activity Rank = no activity	Dataset meets project or local business needs of the primary owner, secondary or additional uses or users were not considered, not recognized as an authoritative data or is part of a similar dataset. Not managed to any of the benchmarks in the approved lifecycle.

## General Questions for All Stages

1) Is there a recurring process to obtain funding for all lifecycle stages of this dataset?

**Answer:** Funding support is part of agency budget on a recurring basis, funding is consistent and tied to business processes, and supports all lifecycle stages.

**Justification Comment:**

**Attachment(s):** 1

Funding comes through the Flood Risk Management business Line at HQ USACE. It is part of the Levee Safety Program (found online at <http://www.usace.army.mil/Missions/CivilWorks/LeveeSafetyProgram.aspx>).

2) Is there a process in place to ensure that open government and transparency guidelines are followed in all lifecycle stages for this dataset?

**Answer:** Process is published as appropriate with respect to sensitivity requirements, process is transparent, published appropriately.

**Justification Comment:**

**Attachment(s):** 0

Data is available by requesting through the NLD web site <http://nld.usace.army.mil/egis/f?p=471:1:>

It is also available through Homeland Security Infrastructure Program (HSIP).

The NLD is registered at the Geospatial Platform.

3) Are there processes and tools in place so that staff are sufficiently knowledgeable to ensure a continuity of the dataset for all stages of the lifecycle, especially during staffing transitions?

**Answer:** Processes and tools to ensure dataset continuity are in place and implemented for all lifecycle stages.

**Justification Comment:**

**Attachment(s):** 3

The security plan, configuration management plan and software design description were last updated in 2013 and will be updated again in 2016/2017. Along with another FOUO document (NLD Strategic Plan), these ensure the continuity of the dataset.

The security plan contains the security implementation for the NLD and covers authentication, authorization and fine grain access control. The configuration management plan provides instructions for incorporating Secure Configuration Management (CM) and Data Management (DM) practices and procedures into the National Levee Database (NLD) project. This document demonstrates the application of

CM/DM on this project and provides guidelines for implementing procedures supporting this function. The software design description describes the design of the requirements, the design decisions, the architectural design, and the detailed design needed to implement the National Levee Database. The SDD is used as the basis for implementing the software.

## STAGE 1 - Define/Plan

4) Are user and business requirements defined and formalized?

**Answer:** A recurring process is in place, including defining new partner and stakeholder business needs as they arise, and is fully implemented.

**Justification Comment:**

**Attachment(s):** 0

See stratgic plan uploaded in question 1.

5) How are partners/stakeholders involved in the requirements collection process?

**Answer:** A recurring process exists for gathering partners/ stakeholder requirements is in place and

is in the beginning stages of implementation.

**Justification Comment:**

**Attachment(s):** 0

Currently, the NLD include levees from USACE and FEMA. Congressionally mandated to include all federal levees and long term plans include capturing state and local maintained levees.

6) Is there a quality assurance process for the dataset?

**Answer:** No.

**Justification Comment:**

**Attachment(s):** 1

Data is verified and validated prior to being loaded into the database, but at a local/regional level.

From the attached survey standard "In-house surveys should follow standard internal quality procedures as established by each district for surveying. If contract deliverables are involved, a government quality assurance plan is required for the contracted scope. Quality control plans for contracted scope should include at a minimum checks on data completeness, topology and spatial accuracy. Quality assurance and quality control summary reports should be included throughout the survey process up to NLD deliverable completion."

7) Is there a process to evaluate the sensitivity, privacy, and confidentiality of this dataset?

**Answer:** Sensitivity, privacy, and confidentiality evaluations fully implemented, reviewed and updated on a recurring basis.

**Justification Comment:**

**Attachment(s):** 0

USACE documents the sensitivity of each field in the NLD, 3.5 Security Matrix. That document is an FOUO document.

8) Are defined data standards used in collecting, processing, and/or rendering the data?

**Answer:** Standards fully implemented documented and published as appropriate.

**Justification Comment:**

**Attachment(s):** 0

NLD is compliant with Spatial Data Standards for Facilities, Infrastructure and Environment (SDSFIE) 4.0 and ISO 19115 Metadata Standard.

## STAGE 2 - Inventory/Evaluate

9) Is there a process for determining if data necessary to meet requirements already exist from other sources (either within or outside the agency) before collecting or acquiring new data?

**Answer:** Process for determining appropriate data is being reused fully implemented, reviewed, and updated on a regular basis.

**Justification Comment:**

**Attachment(s):** 0

At the time the NLD was being initially developed a large effort was resourced at each district office to compile all levee information into one centrally managed database. The NLD is a congressionally mandated data set and therefore the authoritative source for US levees.

## STAGE 3 - Obtain

10) Is there a process for obtaining data in relation to this dataset?

**Answer:** Process is under development.

**Justification Comment:**

**Attachment(s):** 0

At the time USACE levees were captured in the database a data acquisition plan was developed and fully implemented. Currently, USACE is working with other federal agencies to determine the best approach for capturing other federal levees.

11) Is the metadata in a FGDC endorsed geospatial metadata standard?

**Answer:** Metadata is available in a format endorsed by the FGDC, it fully describes the dataset and provides all the information required to make the dataset discoverable, accessible, and usable.

**Justification Comment:**

**Attachment(s):** 0

Metadata file is registered on the Geospatial Platform.

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**12)** How complete is the geographic coverage as defined in the requirements for the dataset?

**Part 1 Answer:** Business requirements for cyclic updates identified and a process is in place.

**Part 2 Answer:** Dataset has presently attained the greatest geographic coverage as defined by the current requirements or roughly 100%.

**Justification Comment:**

**Attachment(s):** 0

Data set covers all 50 states, with 100% of all USACE levees. Additional state and federal levees are being added annually as they are available.

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## STAGE 4 - Access

**13)** Do you have a process for providing users access to the data in an open digital machine readable format?

**Answer:** User access process is fully implemented, data is available, process is reviewed and updated on a recurring basis.

**Justification Comment:**

**Attachment(s):** 0

Data is available in a variety of formats, shape, geodatabase, web service.  
<http://nld.usace.army.mil/egis/f?p=471:1:0::NO>

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## STAGE 5 - Maintain

**14)** Is there a maintenance process for updating and storing the dataset?

**Answer:** Dataset maintenance process is fully implemented and processes are reviewed and periodically updated.

**Justification Comment:**

**Attachment(s):** 0

The Submission training documents are found under the the help documents on the help tab of the NLD public website. <http://nld.usace.army.mil/egis/f?p=471:6:0::NO>

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**15)** Is there an error correction process as part of dataset maintenance?

**Answer:** Error correction process includes user notification, process reviewed on a recurring basis.

**Justification Comment:**

**Attachment(s):** 0

Data goes through an automatic validation process prior to being incorporated into the NLD.

The first step is for the District Data Manager to create a new submission (1) and then upload their geodatabases and media files to the NLD submission library for their district (2). Then the System Administrator uploads the files via ArcCatalog to the district schema (3). After that, validation processes are run on the data to ensure its integrity and consistency (4). After the data has been validated it is then transferred over to the NLD data warehouse (5). Calculations are run to compare geometries between the submission and congressional districts, counties, and states (6 & 7). Now the Hazus Data Manager downloads the relevant geometries (8), creates a new calculation version (9), and then runs elevation calculations on the data(10). Once the calculations are finished, the elevation/hazus data is submitted to NLD (11) where it is uploaded by the System Administrator (12). The System Administrator then creates relationships for the critical infrastructure, systems, and elevations. The data is finally published to NLD.

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## STAGE 6 - Use/Evaluate

**16)** Is there a process to determine if the dataset meets user needs?

**Answer:** Process is fully implemented and repeated on a recurring basis.

**Justification Comment:**

**Attachment(s):** 0

User surveys are executed on a 3 - 5 year cycle and/or as needed to identify emerging requirements. The last one was done in 2013 and we anticipate another one being done in FY17/FY18 time fram.

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**17)** Is there a process to provide users information on how to access and properly use the dataset?

**Answer:** Process is fully implemented supporting access and proper use, process is reviewed on a recurring basis.

**Justification Comment:**

**Attachment(s):** 0

Metadata file and web site provides users with information on how to access and properly use the dataset.

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**18)** Are the business processes and management practices assessed to meet changing technology?

**Answer:** Assessment process is fully implemented for taking advantage of changing technology, process is reviewed on a recurring basis.

**Justification Comment:**

**Attachment(s):** 0

Documented in the NLD Stratgic Plan (uploaded in question 1).

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## **STAGE 7 - Archive**

**19)** Is there an archiving process for the dataset?

**Answer:** Archival and disposition processes are fully implemented.

**Justification Comment:**

**Attachment(s):** 0

Dataset archived is built into the application and stored at ERDC CRREL.